Publications and Other Research

2009

Federal Reserve Bank of New York
Research and Statistics Group
www.newyorkfed.org/research

Contents

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www.newyorkfed.org/research

February 2010

Introduction

The Federal Reserve Bank of New York's Research and Statistics Group produces a wide variety of publications and discussion papers of interest to business and banking professionals, policymakers, academics, and the general public.

This catalogue lists recent issues in our research series:

- *the Economic Policy Review*
  a policy-oriented journal focusing on economic and financial market issues
- *Current Issues in Economics and Finance*
  concise studies of topical economic and financial issues
- *Second District Highlights*
  a regional supplement to *Current Issues*
- *Staff Reports*
  technical papers intended for publication in leading economic and finance journals.

The Research Group also offers two other publications of interest to readers:

- *EPR Executive Summaries*
  online versions of selected *Economic Policy Review* articles, in abridged form
- *Research Update*
  an online quarterly newsletter providing summaries of studies and listings of recent publications in our research series.

Members of the Group also publish papers in many economic and finance journals, conference volumes, and scholarly books. A list of these publications begins on page 25.

Economic Policy Review

The *Economic Policy Review* is a policy-oriented research journal that focuses on macroeconomic, banking, and financial market topics.

EPR articles are available at **www.newyorkfed.org/research/epr**.

Volume 15

No. 1, July 2009

The Case for TIPS: An Examination of the Costs and Benefits

William C. Dudley, Jennifer Roush, and Michelle Steinberg Ezer

Slightly more than a decade has passed since the introduction of the Treasury Inflation-Protected Securities (TIPS) program, through which the U.S. Treasury Department issues inflation-indexed debt. Several studies have suggested that the program has been a financial disappointment for the Treasury and by extension U.S. taxpayers. Relying on ex post analysis, the studies argue that a more cost-effective strategy remains the issuance of nominal Treasury securities. This article proposes that evaluations of the TIPS program be more comprehensive, and instead focus on the ex ante costs of TIPS issuance compared with nominal Treasury issuance. The authors contend that ex ante analysis is a more effective way to assess the costs of TIPS *over the long run*. Furthermore, relative cost calculations—whether ex post or ex ante—are just one aspect of a comprehensive analysis of the costs and benefits of the TIPS program. TIPS issuance provides other benefits that should be taken into account when evaluating the program, especially when TIPS are only marginally more expensive or about as expensive to issue as nominal Treasury securities.

Why Did FDR's Bank Holiday Succeed?

William L. Silber

After a month-long run on American banks, Franklin Delano Roosevelt proclaimed a Bank Holiday, beginning March 6, 1933, that shut down the banking system. When the banks reopened on March 13, depositors stood in line to return their hoarded cash. This article attributes the success of the Bank Holiday and the remarkable turnaround in the public's confidence to the Emergency Banking Act, passed by Congress on March 9, 1933. Roosevelt used the emergency currency provisions of the Act to encourage the Federal Reserve to create de facto 100 percent deposit insurance in the reopened banks. The contemporary press confirms that the public recognized the implicit guarantee and, as a result, believed that the reopened banks would be safe, as the President explained in his first Fireside Chat on March 12, 1933. Americans responded by returning more than half of their hoarded cash to the banks within two weeks and by bidding up stock prices by the largest ever one-day percentage price increase on March 15—the first trading day after the Bank Holiday ended. The study concludes that the Bank Holiday and the Emergency Banking Act of 1933 reestablished the integrity of the U.S. payments system and demonstrated the power of credible regime-shifting policies.

Below the Line: Estimates of Negative Equity among Nonprime Mortgage Borrowers*

Andrew F. Haughwout and Ebiere Okah

Measures of housing units with negative equity—in which the mortgage balance exceeds the value of the collateral housing unit—have become a necessary component in crafting policies to address the current foreclosure crisis. This article estimates negative equity in the U.S. nonprime mortgage market for 2008-09 to describe the sources of the problem and the characteristics of borrowers in negative equity. The authors combine information from house price indexes with data on individual loans to estimate the prevalence and magnitude of negative equity across various dimensions, including the location of the property and the year in which the mortgage originated. They find that negative

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equity is closely associated with the time and place of mortgage origination and with the existence of subordinate liens against the property. In addition, borrowers whose mortgage is worth more than their house are twice as likely as borrowers in positive equity to be seriously delinquent, or in default, on their first-lien mortgage. The study also uses information derived from housing price futures contracts to estimate the path of negative equity beyond 2009.
EPR Executive Summary available

EPR Executive Summaries

Visit our website for concise summaries of *Economic Policy Review* articles.

Our online publication *EPR Executive Summaries* condenses many of the articles published in the *Review*. Readers will find timely, policy-oriented summaries that are easy to absorb.

The summaries make the technical research of New York Fed economists more accessible to policymakers, educators, business leaders, and others. The series is designed to foster a fuller understanding of our research among those who are in a position to put our ideas and findings to work.

Summaries are available for many articles published since 2002.

www.newyorkfed.org/research/epr/executive_summary.html

Current Issues in Economics and Finance

Current Issues in Economics and Finance offers concise studies of topical economic and financial issues.

Second District Highlights—a regional supplement to *Current Issues*—covers important financial and economic developments in the Federal Reserve System's Second District.

Both series are available at **www.newyorkfed.org/research/current_issues**.

Volume 15

No. 1, January 2009

What's Behind Volatile Import Prices from China?*

Mary Amiti and Donald R. Davis

In a sharp departure from earlier trends, the price of U.S. imports from China rose 6 percent in the 2006-08 period. To explore the forces behind this surprising increase, the authors create a new import index that uses highly disaggregated data to track price developments in different product types. The index reveals that the largest price increases were concentrated in industrial supplies—goods that rely heavily on commodity inputs. The authors conclude that the surge in commodity prices through mid-2008 was the primary driver of the rising import prices from China.

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No. 2, February 2009

The Term Securities Lending Facility: Origin, Design, and Effects*

Michael J. Fleming, Warren B. Hrung, and Frank M. Keane

The Federal Reserve launched the Term Securities Lending Facility (TSLF) in 2008 to promote liquidity in the funding markets and improve the operation of the broader financial markets. The facility increases the ability of dealers to obtain cash in the private market by enabling them to pledge securities temporarily as collateral for Treasuries, which are relatively easy to finance. The TSLF thus reduces the need for dealers to sell assets into illiquid markets as well as lessens the likelihood of a loss of confidence among lenders.

No. 3, July 2009

Productivity Swings and Housing Prices*

James A. Kahn

The housing boom and bust of the last decade, often attributed to "bubbles" and credit market irregularities, may owe much to shifts in economic fundamentals. A resurgence in productivity that began in the mid-1990s contributed to a sense of optimism about future income that likely encouraged many consumers to pay high prices for housing. The optimism continued until 2007, when accumulating evidence of a slowdown in productivity helped dash expectations of further income growth and stifle the boom in residential real estate.

No. 4, August 2009

The Federal Reserve's Primary Dealer Credit Facility

Tobias Adrian, Christopher R. Burke, and James J. McAndrews

As liquidity conditions in the "repo market"—the market where broker-dealers obtain financing for their securities—deteriorated following the near-bankruptcy of Bear Stearns in March 2008, the Federal Reserve took the step of creating a special facility to provide overnight loans to dealers that have a trading relationship with the Federal Reserve Bank of New York. Six months later, in the wake of new strains in the repo market, the Fed expanded the facility by broadening the types of collateral accepted for loans. Both initiatives were designed to help restore the orderly functioning of the market and to prevent the spillover of distress to other financial firms.

No. 5, September 2009

Is the Worst Over? Economic Indexes and the Course of the Recession in New York and New Jersey

Jason Bram, James Orr, Robert Rich, Rae Rosen, and Joseph Song

The New York–New Jersey region entered a pronounced downturn in 2008, but the pace of decline eased considerably in spring 2009 and then leveled off in July, according to three key Federal Reserve Bank of New York economic indexes. These developments, in conjunction with a growing consensus that the national economy is headed for recovery, suggest that the worst may be over for the region's economy. However, a downsizing of the area's critical finance sector could pose a major risk to the economic outlook going forward—particularly for New York City.
Second District Highlights

No. 6, October 2009

The Global Financial Crisis and Offshore Dollar Markets

Niall Coffey, Warren B. Hrung, Hoai-Luu Nguyen, and Asani Sarkar

Facing a shortage of U.S. dollars and a growing need to support their dollar-denominated assets during the financial crisis, international firms increasingly turned to the foreign exchange swap market and other secured funding sources. An analysis of the ensuing strains in the swap market shows that the dollar "basis"—the premium international institutions pay for dollar funding—became persistently large and positive, chiefly as a result of the higher funding costs paid by smaller firms and non-U.S. banks. The widening of the basis underscores the severity and breadth

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of the crisis as markets designed to facilitate the flow of dollars faltered and institutions worldwide struggled to obtain funds.

No. 7, November 2009

Do Alternative Measures of GDP Affect Its Interpretation?

Bart Hobijn and Charles Steindel

Gross domestic product's high correlation with unemployment and inflation makes it a key measure of the U.S. economy. Yet the somewhat arbitrary nature of the GDP construction process complicates interpretation and measurement of the indicator. A study of an alternative measure of GDP designed to address the published series' limitations finds that the adjusted measure differs in its representation of the long-term trend—but not the short-term fluctuations—of GDP. The published series' relevance as an indicator is therefore robust to some of the arbitrariness of its construction.

No. 8, December 2009

Why Are Banks Holding So Many Excess Reserves?*

Todd Keister and James J. McAndrews

The buildup of reserves in the U.S. banking system during the financial crisis has fueled concerns that the Federal Reserve's policies may have failed to stimulate the flow of credit in the economy: banks, it appears, are amassing funds rather than lending them out. However, a careful examination of the balance sheet effects of central bank actions shows that the high level of reserves is simply a by-product of the Fed's new lending facilities and asset purchase programs. The total quantity of reserves in the banking system reflects the scale of the Fed's policy initiatives, but conveys no information about the initiatives' effects on bank lending or on the economy more broadly.

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Introduction
Economic Policy Review
Current Issues
Research Update
Staff Reports
Outside Journals

Research Update

Research Update is an online quarterly newsletter designed to keep you informed about the Research Group's current work. The newsletter—which complements this catalogue—offers summaries of selected studies and listings of recent articles and papers in our research series.

Research Update also reports on other news within the Group, including:

- staff publication in outside journals,
- presentations by economists at academic conferences and industry gatherings,
- upcoming conferences at the Federal Reserve Bank of New York,
- calls for papers, and
- new publications and services.

The publication is available at **www.newyorkfed.org/research/research_update**.

Staff Reports

The *Staff Reports* series features technical research papers designed to stimulate discussion and elicit comments. These papers are intended for eventual publication in leading economic and finance journals.

The series is available only at **www.newyorkfed.org/research/staff_reports**.

Macroeconomics and Growth

No. 367, March 2009

CONDI: A Cost-of-Nominal-Distortions Index

Stefano Eusepi, Bart Hobijn, and Andrea Tambalotti

The authors construct a price index with weights for the prices of different PCE (personal consumption expenditures) goods chosen to minimize the welfare costs of nominal distortions. In this cost-of-nominal-distortions index (CONDI), the weights are computed in a multi-sector New Keynesian model with time-dependent price setting. The model is calibrated using U.S. data on the dispersion of price stickiness and labor shares across sectors. The study finds that the CONDI weights depend mostly on price stickiness and are less affected by the dispersion in labor shares. Moreover, CONDI stabilization closely approximates the optimal monetary policy and leads to negligible welfare losses. Finally, CONDI is better approximated by targeting core inflation rather than headline inflation—and is even better approximated with an adjusted core index that covers total expenditures excluding autos, clothing, energy, and food at home, but including food away from home.

No. 375, June 2009

Credit Quantity and Credit Quality: Bank Competition and Capital Accumulation

Nicola Cetorelli and Pietro F. Peretto

This paper shows that bank competition has an intrinsically ambiguous effect on capital accumulation and economic growth. It further demonstrates that banking market structure can be responsible for the emergence of development traps in economies that would otherwise be characterized by unique steady-state equilibria. These predictions explain the conflicting evidence gathered from recent empirical studies of how bank competition affects the real economy. Cetorelli and Peretto's results were obtained by developing a dynamic general-equilibrium model of capital accumulation in which banks operate in a Cournot oligopoly. The presence of more banks leads to a higher quantity of credit available to entrepreneurs, but also to diminished incentives to screen loan applicants and thus to poorer capital allocation. The authors also show that conditioning on economic parameters describing the quality of the entrepreneurial population resolves the theoretical ambiguity.

No. 385, August 2009

Credit Spreads and Monetary Policy

Vasco Cúrdia and Michael Woodford

Cúrdia and Woodford consider the desirability of modifying a standard Taylor rule for a central bank's interest rate policy to incorporate either an adjustment for changes in interest rate spreads or a response to variations in the aggregate volume of credit. The authors use a simple DSGE (dynamic stochastic general equilibrium) model with credit frictions, comparing the equilibrium responses to various disturbances under the modified Taylor rules with those under a policy that would maximize average expected utility. According to the model, a spread adjustment can improve on the standard Taylor rule, but the optimal size of the adjustment is unlikely to be large, and the same type of adjustment is not desirable regardless of the source of variation in credit spreads. A response to credit is less likely to be helpful, and its desirable size (and sign) is less robust to alternative assumptions about the nature and persistence of economic disturbances.

No. 396, October 2009

Prices and Quantities in the Monetary Policy Transmission Mechanism

Tobias Adrian and Hyun Song Shin

Central banks have various tools for implementing monetary policy, but the tool receiving the most attention in the literature has been the overnight interest rate. The financial crisis that erupted in the summer of 2007 has refocused attention on other channels of monetary policy, notably the transmission of policy through the supply of credit and overall conditions in the capital markets. In 2008, the Federal Reserve put into place various lender-of-last-resort programs under section 13(3) of the Federal Reserve Act to cushion the strains on financial intermediaries' balance sheets and thereby target the unusually wide spreads in various credit markets. While classic monetary policy targets a price—for example, the federal funds rate—the liquidity facilities affect balance sheet quantities. The financial crisis forcefully demonstrated that the collapse of the financial sector's balance sheet capacity can have powerful adverse effects on the real economy. This study reexamines the distinctions between prices and quantities in monetary policy transmission.

No. 397, October 2009

Monetary Tightening Cycles and the Predictability of Economic Activity

Arturo Estrella and Tobias Adrian

Eleven of fourteen monetary tightening cycles since 1955 were followed by increases in unemployment; three were not. The term spread at the end of these cycles discriminates almost perfectly between subsequent outcomes, but levels of nominal or real interest rates, as well as other interest rate spreads, generally do not.

No. 398, October 2009

Financial Intermediaries and Monetary Economics

Tobias Adrian and Hyun Song Shin

This study reconsiders the role of financial intermediaries in monetary economics. Adrian and Shin explore the hypothesis that financial intermediaries drive the business cycle by way of their role in determining the price of risk. In this framework, balance sheet quantities emerge as a key indicator of risk appetite and hence of the "risk-taking channel" of monetary policy. The authors document evidence that the balance sheets of financial intermediaries reflect the transmission of monetary policy through capital market conditions. They find short-term interest rates to be important in influencing the size of financial intermediary balance sheets. The findings suggest that the traditional focus on the money stock for the conduct of monetary policy may have more modern counterparts, and point to the importance of tracking balance sheet quantities for the conduct of monetary policy.

No. 399, October 2009

Labor Supply Heterogeneity and Macroeconomic Comovement

Stefano Eusepi and Bruce Preston

Standard real business cycle models must rely on total factor productivity (TFP) shocks to explain the observed comovement of consumption, investment, and hours worked. This paper shows that a neoclassical model consistent with observed heterogeneity in labor supply and consumption can generate comovement in the absence of TFP shocks. Intertemporal substitution of goods and leisure induces comovement over the business cycle through heterogeneity in the consumption behavior of employed and unemployed workers. This result owes to two model features introduced to capture important characteristics of U.S. labor market data. First, individual consumption is affected by the number of hours worked: Employed agents consume more on average than the unemployed do. Second, changes in the employment rate, a central factor explaining variation in total hours, affect aggregate consumption. Demand shocks—such as shifts in the marginal efficiency of investment as well as government spending shocks and news shocks—are shown to generate economic fluctuations consistent with observed business cycles.

No. 404, November 2009

Conventional and Unconventional Monetary Policy

Vasco Cúrdia and Michael Woodford

Cúrdia and Woodford extend a standard New Keynesian model both to incorporate heterogeneity in spending opportunities along with two sources of (potentially time-varying) credit spreads and to allow a role for the central bank's balance sheet in determining equilibrium. They use the model to investigate the implications of imperfect financial intermediation for familiar monetary policy prescriptions and to consider additional dimensions of central bank policy—variations in the size and composition of the central bank's balance sheet as well as payment of interest on reserves—alongside the traditional question of the proper operating target for an overnight policy rate. The authors also study the special problems that arise when the zero lower bound for the policy rate is reached. They show that it is possible to provide criteria for the choice of policy along each of these possible dimensions within a single unified framework, and to achieve policy prescriptions that apply equally well regardless of whether or not financial markets work efficiently and regardless of whether or not the zero bound on nominal interest rates is reached.

No. 407, November 2009

How Rigid Are Producer Prices?

Pinelopi Koujianou Goldberg and Rebecca Hellerstein

Conventional wisdom suggests that producer prices are more rigid than consumer prices and thus they play less of an allocative role than do consumer prices. Analyzing 1987-2008 Bureau of Labor Statistics microdata for the producer price index, the authors find that producer prices for finished goods and services in fact exhibit roughly the same rigidity as consumer prices that include sales and substantially less rigidity than consumer prices that exclude them. Moreover, large firms change prices two to three times more frequently than small firms do, and by smaller amounts, particularly when prices decrease. Longer price durations are associated with larger price changes, although considerable heterogeneity exists. Long-term contracts are associated with somewhat greater price rigidity for goods and services. The size of price decreases plays a key role in inflation dynamics, while the size of price increases does not. The frequencies of price increases and decreases tend to move together and so cancel one another out.

No. 408, November 2009

Implications of the Financial Crisis for Potential Growth: Past, Present, and Future

Charles Steindel

The scale of the recent collapse in asset values and the magnitude of the recession suggest that activities connected to the increase in values over the 2002-07 period—notably, expansion of the financial markets, homebuilding, and real estate—were overstated. If this is true, aggregate U.S. economic growth would have been overstated, implying that previous rates of potential GDP growth may also have been overstated and that the trajectory of potential GDP may be slower going forward. Slowing growth in the finance, homebuilding, and real estate sectors could hold back aggregate growth. A detailed examination of these sectors' direct contributions to GDP, however, suggests that overstatements of past growth would likely not have made a large difference in recorded GDP growth. Slower growth in these sectors would have, at most, a moderate direct effect on aggregate activity. The recent experience's longer term effects on GDP would seem to stem largely from factors other than retrenchment in these sectors.

No. 411, December 2009

Investment Shocks and the Relative Price of Investment

Alejandro Justiniano, Giorgio E. Primiceri, and Andrea Tambalotti

The authors estimate a New Neoclassical Synthesis model of the business cycle with two investment shocks. The first, an investment-specific technology shock, affects the transformation of consumption into investment goods and is identified with the relative price of investment. The second shock affects the production of installed capital from investment goods or, more broadly, the transformation of savings into future capital input. The study finds that this shock is the most important driver of U.S. business cycle fluctuations in the postwar period and that it is likely to proxy for more fundamental disturbances to the functioning of the financial sector. To corroborate this interpretation, the authors show that the shock correlates strongly with interest rate spreads and that it played a particularly important role in the recession of 2008.

No. 418, December 2009

The Homeownership Gap

Andrew Haughwout, Richard Peach, and Joseph Tracy

After rising for a decade, the U.S. homeownership rate peaked at 69 percent in the third quarter of 2006. Over the next two and a half years, as home prices fell in many parts of the country and the unemployment rate rose sharply, the homeownership rate declined by 1.7 percentage points. An important question is, how much more will this rate decline over the current economic downturn? To address this question, Haughwout, Peach, and Tracy propose the concept of the "homeownership gap" as a gauge of downward pressure on the homeownership rate. They define the homeownership gap as the difference between the "official" homeownership rate and a recomputed rate that excludes owners who are in a negative equity position, meaning that the value of their houses is less than their outstanding mortgage balance. Their estimate of this gap suggests that the official homeownership rate will likely experience significant downward pressure in the coming years.

No. 419, December 2009

Estimating the Cross-Sectional Distribution of Price Stickiness from Aggregate Data

Carlos Carvalho and Niels Arne Dam

This study estimates a multisector sticky-price model for the U.S. economy in which the degree of price stickiness is allowed to vary across sectors. For this purpose, the authors use a specification that allows them to extract information about the underlying cross-sectional distribution from aggregate data. Estimating the model using only aggregate data on nominal and real output, they find that the inferred distribution of price stickiness is strikingly similar to the empirical distribution constructed from the recent microeconomic evidence on price setting in the U.S. economy. The authors also explore their Bayesian approach to combine the aggregate time-series data with the microeconomic information on the distribution of price rigidity. Their results show that allowing for this type of heterogeneity is critically important to understanding the joint dynamics of output and prices, and it constitutes a step toward reconciling the extent of nominal price rigidity implied by aggregate data with the evidence from microeconomic data on price stickiness.

No. 420, December 2009

Real-Time Underlying Inflation Gauges for Monetary Policymakers

Marlene Amstad and Simon Potter

Central banks analyze a wide range of data to obtain better measures of underlying inflationary pressures. Factor models have been widely used to formalize this procedure. Using a dynamic factor model, this paper develops a measure of underlying inflation (UIG) at time horizons of relevance for monetary policymakers for both consumer price index inflation and personal consumption expenditures inflation. The UIG uses a broad data set allowing for high-frequency updates on underlying inflation. The paper complements the existing literature on U.S. "core" measures by illustrating how UIG has been used and interpreted in real time since late 2005.

International

No. 361, January 2009

Global Liquidity and Exchange Rates*

Tobias Adrian, Erkko Etula, and Hyun Song Shin

This study presents evidence that fluctuations in the aggregate balance sheets of financial intermediaries forecast exchange rate returns—at weekly, monthly, and quarterly frequencies, both in and out of sample, and for a large set of countries. The authors estimate prices of risk using a cross-sectional, arbitrage-free asset pricing approach and show that balance sheets forecast exchange rates because of the latter's association with fluctuations in risk premia. They provide a rationale for an intertemporal equilibrium pricing theory in which intermediaries are subject to balance sheet constraints.

No. 387, August 2009

Commodity Prices, Commodity Currencies, and Global Economic Developments

Jan J. J. Groen and Paolo A. Pesenti

This paper seeks to produce forecasts of commodity price movements that can systematically improve on naïve statistical benchmarks. Groen and Pesenti revisit how well changes in commodity currencies perform as potential efficient predictors of commodity prices, a view emphasized in the recent literature. They also consider different types of factor-augmented models that use information from a large data set containing a variety of indicators of supply and demand conditions across major developed and developing countries. These models use either standard principal components or the more novel partial least squares (PLS) regression to extract dynamic factors from the data set. The authors consider ten alternative indexes and sub-indexes of spot prices for three different commodity classes across different periods. They find that of all the approaches, the exchange-rate–based model and the PLS factor-augmented model are more likely to outperform the naïve statistical benchmarks, although PLS factor-augmented models usually have a slight edge over the exchange-rate–based approach.

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No. 400, October 2009

The Determinants of International Flows of U.S. Currency

Rebecca Hellerstein and William Ryan

This paper examines the determinants of cross-border flows of U.S. dollar banknotes, using a new panel data set of bilateral flows between the United States and 103 countries from 1990 to 2007. Hellerstein and Ryan show that a gravity model explains international flows of currency as well as it explains international flows of goods and financial assets. They find important roles for market size and transaction costs, consistent with the traditional gravity framework, as well as roles for financial depth, the behavior of the nominal exchange rate, the size of the informal sector, the amount of remittance credits, the degree of competition with the euro, and the history of macroeconomic instability over the previous generation. The study finds no role for official trade flows of goods. Its results thus confirm several hypotheses about the determinants of using a secondary currency.

No. 405, November 2009

Micro, Macro, and Strategic Forces in International Trade Invoicing

Linda S. Goldberg and Cédric Tille

The use of different currencies in the invoicing of international trade transactions plays a major role in the international transmission of economic fluctuations. Existing studies argue that an exporter's invoicing choice reflects structural aspects of its industry, such as market share and the price sensitivity of demand, as well as the hedging of marginal costs (attributable, for instance, to the use of imported inputs) and macroeconomic volatility. Goldberg and Tille use a new, highly disaggregated data set to assess the roles of the various invoicing determinants. Their findings support the factors identified in the literature and document a new feature: a link between shipment size and invoicing. Specifically, larger transactions are more likely to be invoiced in the importer's currency. The authors offer a theoretical explanation for the empirical link between transaction size and invoicing by allowing invoicing to be set through bargaining between exporters and importers, a feature absent from existing models despite its empirical relevance.

Microeconomics

No. 364, February 2009

College Major Choice and the Gender Gap

Basit Zafar

Males and females are markedly different in their choice of college major. Two main reasons have been suggested for the gender gap: differences in innate abilities and differences in preferences. This study addresses the question of how college majors are chosen, focusing on the underlying gender gap. Zafar uses a unique data set of students' subjective expectations about choice-specific outcomes to estimate a model in which a college major is selected under uncertainty. Enjoying coursework, finding fulfillment in potential jobs, and gaining parental approval are the most important determinants. Males and females differ primarily in their preferences in the workplace. The gender gap is due mainly to differences in beliefs about enjoying coursework and differences in preferences, rather than to females being underconfident about their academic ability or fearing monetary discrimination.

No. 365, February 2009

An Experimental Investigation of Why Individuals Conform

Basit Zafar

This paper presents a simple model constructed on the premise that people, when making choices, are motivated by their own payoff as well as by how their actions compare with those of others in their reference group. Zafar shows that conformity of actions may arise either from learning about the norm (learning) or from adhering to the norm because of image-related concerns (influence). To disentangle the two empirically, he uses the fact that image-related concerns can be present only if actions are publicly observable. The model predictions are tested in a "charitable contribution" experiment in which the subjects' actions and identities are unmasked in a controlled and systematic way. Both social learning and social influence play an important role in the subjects' choices. Moreover, social ties (defined as subjects knowing one another from outside the experimental environment) affect the role of social influence.

No. 366, March 2009

Credit Market Competition and the Nature of Firms

Nicola Cetorelli

This paper explores the hypothesis that the availability of credit at the time of a firm's founding has a profound effect on that firm's nature. Cetorelli conjectures that when financial capital is difficult to obtain, firms will need to be built as relatively solid organizations. However, when capital is easily available, firms can be constituted with an intrinsically weaker structure. Cetorelli studies the life cycles of businesses in existence over thirty years through a period of regulatory reform during which U.S. states removed barriers to entry in the banking industry, a development that resulted in significantly improved credit competition. The evidence confirms his conjecture. Firms constituted in post-reform years are intrinsically frailer than those founded in a more financially constrained environment, while firms of pre-reform vintage do not seem to adapt their nature to an easier credit environment.

No. 373, May 2009

Barriers to Household Risk Management: Evidence from India

Shawn Cole, Xavier Giné, Jeremy Tobacman, Petia Topalova, Robert Townsend, and James Vickery

Financial engineering offers the potential to significantly reduce the consumption fluctuations faced by individuals, households, and firms. Yet much of this potential remains unfulfilled. This paper studies the adoption of an innovative rainfall insurance product designed to compensate low-income Indian farmers in the event of insufficient rainfall during the primary monsoon season. Cole et al. first document that only 5 to 10 percent of households purchase the insurance, even though they overwhelmingly cite rainfall variability as their most significant risk. They then conduct a series of randomized field experiments to test theories of low product adoption. Insurance purchase is sensitive to price, with an estimated extensive price elasticity of demand ranging between -.66 and -0.88. Credit constraints are a key barrier to participation, a result also consistent with household self-reports. The authors find mixed evidence that subtle psychological manipulations affect purchases and no evidence that modest attempts at financial education affect household participation.

No. 378, July 2009

How Do College Students Form Expectations?

Basit Zafar

This paper focuses on how college students form expectations about various major-specific outcomes. Zafar collects a unique panel data set of Northwestern University undergraduates that contains their subjective expectations about major-specific outcomes. Although students tend to be overconfident about their future academic performance, the author finds that they revise their expectations about various major-specific outcomes in systematic ways. Furthermore, students seem to update their probabilistic beliefs in a manner consistent with Bayesian analysis: Prior beliefs about outcomes to be realized in college tend to be fairly precise, while new information influences prior beliefs about outcomes in the workplace. Moreover, students who are more uncertain about major-specific outcomes in the initial survey make greater absolute revisions in their beliefs in the follow-up survey. Finally, Zafar presents evidence that learning plays a role in the decision to switch majors.

No. 379, July 2009

Do Vouchers Lead to Sorting under Random Private-School Selection? Evidence from the Milwaukee Voucher Program

Rajashri Chakrabarti

This paper analyzes the effect of school vouchers on student sorting and whether vouchers can be designed to reduce or eliminate it. Chakrabarti focuses on two crucial requirements of the Milwaukee voucher program: 1) private schools must select students randomly and 2) private schools must accept the voucher amount as full tuition payment (that is, "topping up" of vouchers is not permitted). Using a theoretical model, she argues that random selection alone cannot prevent student sorting. However, random selection without topping up can preclude sorting by income, although there is still sorting by ability. Sorting by ability is not caused here by private-school selection, but by parental self-selection. Examining the first five years of the Milwaukee program, the author establishes that random selection has taken place, providing an appropriate setting for testing the corresponding theoretical predictions in the data. She demonstrates that these predications are validated empirically.

No. 383, August 2009

Gender and the Availability of Credit to Privately Held Firms: Evidence from the Surveys of Small Business Finances

Rebel A. Cole and Hamid Mehran

Using data from the nationally representative Surveys of Small Business Finances, Cole and Mehran document empirical regularities in male- and female-owned firms. They find that female-owned firms are 1) significantly smaller, as measured by sales, assets, and employment; 2) younger, as measured by age of the firm; 3) more likely to be organized as proprietorships and less as corporations; 4) more likely to be in retail trade and business services; and 5) inclined to have fewer and shorter banking relationships. Moreover, female owners are significantly younger, less experienced, and not as well educated. The authors also find strong univariate evidence that female-owned firms are significantly more likely to be credit-constrained because they are more likely to be discouraged from applying for credit, although not more likely to be denied credit when they do apply. However, any differences are rendered insignificant in a multivariate setting, which controls for other firm and owner characteristics.

No. 392, September 2009

Labor Market Pooling and Occupational Agglomeration

Todd M. Gabe and Jaison R. Abel

This paper examines the micro-foundations of occupational agglomeration in U.S. metropolitan areas, with an emphasis on labor market pooling. Controlling for a wide range of occupational attributes, including proxies for the use of specialized machinery and for the importance of knowledge spillovers, Gabe and Abel find that jobs characterized by a unique knowledge base exhibit higher levels of geographic concentration than do occupations with generic knowledge requirements. Furthermore, by analyzing co-agglomeration patterns, the authors find that occupations with similar knowledge requirements tend to co-agglomerate. Both results provide new evidence on the importance of labor market pooling as a determinant of occupational agglomeration.

No. 394, September 2009

The Dynamics of Automobile Expenditures

Adam Copeland

This paper presents a dynamic model for light motor vehicles. Consumers solve an optimal stopping problem in deciding if they want a new automobile and when in the model year to purchase it. This dynamic approach allows for determining how the mix of consumers evolves over the model year and for measuring consumers' substitution patterns across products and time. Copeland finds that temporal substitution is significant, driving consumers' entry into and exit from the market. Through counterfactuals, he shows that because consumers will temporarily substitute to a large degree, failure to account for automakers' dynamic pricing strategies results in an inaccurate picture of the return to using pricing incentives. A further finding is that the large price discounts typically offered at the end of the model year result in price discrimination by inducing price-sensitive consumers to delay purchasing new vehicles until the later months of the model year.

No. 401, October 2009

Do Colleges and Universities Increase Their Region's Human Capital?

Jaison R. Abel and Richard Deitz

Abel and Deitz investigate whether the degree-production and research and development (R&D) activities of colleges and universities are related to the amount and types of human capital present in the metropolitan areas where the institutions are located. They find that degree production has only a small positive relationship with local stocks of human capital, suggesting that migration plays an important role in the geographic distribution of human capital. Moreover, the authors show that spillovers from academic R&D activities tilt the structure of local labor markets toward occupations requiring innovation and technical training. These findings demonstrate that colleges and universities raise local human capital levels by increasing both the supply of and demand for skill.

No. 410, December 2009

Real-Time Search in the Laboratory and the Market

Meta Brown, Christopher J. Flinn, and Andrew Schotter

While widely accepted models of labor market search imply a constant reservation wage policy, the empirical evidence strongly suggests that reservation wages decline in the duration of search. This paper reports the results of the first real-time–search laboratory experiment. The controlled environment that subjects face is stationary, and the payoff-maximizing reservation wage is constant. Nevertheless, the subjects' reservation wages decline sharply over time. The authors investigate two hypotheses to explain this decline: 1) searchers respond to the stock of accruing search costs and 2) searchers experience nonstationary subjective costs of time spent searching. The study's data support the latter hypothesis, and the authors substantiate this conclusion both experimentally and econometrically.

No. 417, December 2009

Second Chances: Subprime Mortgage Modification and Re-Default

Andrew Haughwout, Ebiere Okah, and Joseph Tracy

Mortgage modifications have become an important component of public interventions designed to reduce foreclosures. Haughwout, Okah, and Tracy examine how the structure of a mortgage modification affects the likelihood of the modified mortgage re-defaulting over the next year. Using data on subprime modifications that precede the government's Home Affordable Modification Program, the authors focus on those modifications in which the borrower was seriously delinquent and the monthly payment was reduced as part of the modification. The data indicate that the re-default rate declines with the magnitude of the reduction in the monthly payment, but also that the re-default rate declines relatively more when the payment reduction is achieved through principal forgiveness as opposed to lower interest rates.

Banking and Finance

No. 360, January 2009

Money, Liquidity, and Monetary Policy*

Tobias Adrian and Hyun Song Shin

In a market-based financial system, banking and capital market developments are inseparable, and funding conditions are closely tied to fluctuations in the leverage of market-based financial intermediaries. Offering a window on liquidity, the balance sheet growth of broker-dealers provides a sense of the availability of credit. Contractions of broker-dealer balance sheets have tended to precede declines in real economic growth, even before the current turmoil. For this reason, balance sheet quantities of market-based financial intermediaries are important macroeconomic state variables for the conduct of monetary policy.

No. 362, February 2009

The Term Structure of Inflation Expectations*

Tobias Adrian and Hao Wu

Adrian and Wu present estimates of the term structure of inflation expectations, derived from an affine model of real and nominal yield curves. The model features stochastic covariation of inflation with the real pricing kernel, enabling the authors to extract a time-varying inflation risk premium. Adrian and Wu fit the model not only to yields, but also to the yields' variance-covariance matrix, thus increasing identification power. They find that model-implied inflation expectations can differ substantially from break-even inflation rates when market volatility is high. The model's ability to be updated weekly makes it suitable for real-time monetary policy analysis.

*A top download in 2009.

No. 368, April 2009

Subprime Mortgage Pricing: The Impact of Race, Ethnicity, and Gender on the Cost of Borrowing

Andrew Haughwout, Christopher Mayer, and Joseph Tracy

Some observers have argued that minority borrowers and neighborhoods were targeted for expensive credit in 2004-06, the peak period for subprime lending. To investigate this claim, the authors use a new data set that merges demographic information on subprime borrowers with information on their mortgages. They find no evidence of adverse pricing by race, ethnicity, or gender in either the initial rate or the reset margin. Indeed, minority borrowers appear to pay slightly lower rates, as do borrowers in Zip codes with a larger percentage of black or Hispanic residents or higher unemployment. Mortgage rates are also lower in locations with higher rates of house price appreciation. Although these results suggest some economies of scale in subprime lending, the authors caution that they are unable to measure points and fees at loan origination, and the data do not indicate whether borrowers might have qualified for less expensive conforming mortgages.

No. 369, April 2009

The Impact of Tax Law Changes on Bank Dividend Policy, Sell-offs, Organizational Form, and Industry Structure

Hamid Mehran and Michael Suher

This paper investigates the effect of a 1996 tax law change allowing commercial banks to elect S-corporation status. By the end of 2007, roughly one in three banks had opted for or converted to S status. The authors analyze the effect on bank dividend payouts. They also examine the effect S-corporation status has on a community bank's likelihood of sell-off and measure a firm's sensitivity to tax rates based on its choice of organizational form. Mehran and Suher document that dividend payouts increase substantially after a bank's conversion to S status. Moreover, community banks that convert are significantly less likely to be sold than their C-corporation peers. The study estimates a tax rate elasticity of conversion in the range of 2 to 3 percent for every 1-percentage-point change in relative tax rates. Overall, Subchapter S status is shown to have significant effects on bank conduct and industry structure.

No. 370, May 2009

Precautionary Reserves and the Interbank Market

Adam Ashcraft, James McAndrews, and David Skeie

Liquidity hoarding by banks and extreme volatility of the fed funds rate have been widely seen as severely disrupting the interbank market and the broader financial system during the 2007-08 financial crisis. Using data on intraday account balances held by banks at the Federal Reserve and Fedwire interbank transactions to estimate all overnight fed funds trades, the authors present empirical evidence on banks' precautionary hoarding of reserves, their reluctance to lend, and extreme fed funds rate volatility. They develop a model with credit and liquidity frictions in the interbank market consistent with the empirical results. Their theoretical results show that banks rationally hold excess reserves intraday and overnight as a precautionary measure against liquidity shocks. Moreover, the intraday fed funds rate can spike above the discount rate and crash to near zero. Apparent anomalies during the financial crisis may be seen as stark but natural outcomes of the model of the interbank market.

No. 371, May 2009

Bank Liquidity, Interbank Markets, and Monetary Policy

Xavier Freixas, Antoine Martin, and David Skeie

A major lesson of the recent financial crisis is that the ability of banks to withstand liquidity shocks and to provide lending to one another is crucial for financial stability. This paper studies the functioning of the interbank lending market and the optimal policy of a central bank in response to both idiosyncratic and aggregate shocks. In particular, it considers how the interbank market affects a bank's choice between holding liquid assets ex ante and acquiring such assets in the market ex post. The authors show that a central bank should use different tools to manage different types of shocks. Specifically, it should respond to idiosyncratic shocks by lowering the interest rate in the interbank market and address aggregate shocks by injecting liquid assets into the banking system. They also show that failure to adopt the optimal policy can lead to financial fragility.

No. 372, May 2009

Credit Default Swap Auctions

Jean Helwege, Samuel Maurer, Asani Sarkar, and Yuan Wang

The rapid growth of the credit default swap (CDS) market and the increased number of defaults in recent years have led to major changes in the way CDS contracts are settled when default occurs. Auctions are increasingly the mechanism used to settle these contracts, replacing physical transfers of defaulted bonds between CDS sellers and buyers. Indeed, auctions will now become a standard feature of recent CDS contracts. This paper examines all CDS auctions conducted to date and evaluates their efficacy by comparing the auction outcomes with the underlying bond prices in the secondary market. The auctions appear to have served their purpose, as the authors find no evidence of inefficiency: Participation is high, open interest is low, and auction prices are close to prices observed in the bond market before and after each auction. The authors qualify their conclusions by noting that relatively few auctions have taken place thus far.

No. 374, May 2009

The Persistent Effects of a False News Shock

Carlos Carvalho, Nicholas Klagge, and Emanuel Moench

In September 2008, a six-year-old article about the 2002 bankruptcy of United Airlines' parent company resurfaced on the Internet and was mistakenly believed to be reporting a new bankruptcy filing by the company. The parent company's stock price dropped by as much as 76 percent in just a few minutes, before NASDAQ halted trading. After the "news" had been identified as false, the price rebounded, but still ended the day 11.2 percent below the previous close. The authors use this natural experiment and a simple asset-pricing model to study the aftermath of this false news shock. They find that, after three trading sessions, the company's stock was still trading below the two-standard-deviation confidence band implied by the model and that it returned to within one standard deviation only during the sixth session. On the seventh day after the episode, the stock was trading at exactly the level predicted by the model.

No. 376, June 2009

Financial Visibility and the Decision to Go Private

Hamid Mehran and Stavros Peristiani

Many companies that privatized between 1990 and 2007 were fairly young public firms, often with the same management team making the crucial restructuring decisions both at the time of the initial public offering (IPO) and the buyout. Mehran and Peristiani investigate the determinants of the decision to go private over a firm's public life cycle. Their evidence reveals that firms with declining growth in analyst coverage, falling institutional ownership, and low stock turnover were more likely to go private and opted to do so sooner. The authors argue that a primary reason behind the decision of IPO firms to abandon their public listing was a failure to attract a critical mass of financial visibility and investor interest. Consistent with earlier literature, they also find strong support for Jensen's free-cash-flow hypothesis, which argues that these corporate restructurings are a useful tool in capital markets for mitigating agency problems between insiders and outside shareholders.

No. 377, June 2009

Globalized Banks: Lending to Emerging Markets in the Crisis

Nicola Cetorelli and Linda S. Goldberg

Global banks played a significant role in the transmission of the current crisis to emerging-market economies. Flows between global banks and emerging markets include both cross-border lending, which has long been recognized as responding significantly to shocks at home or abroad, and internal capital market lending, which is the internal flow of funds within a banking organization (such as between the organization's headquarters and its offices in foreign locations). Adverse liquidity shocks to developed-country banking, such as those that occurred in the United States in 2007 and 2008, have reduced lending in local markets through contractions in cross-border lending to banks and private agents and also through contractions in parent banks' support of foreign affiliates. Because all these forms of transmission impinge on the lending channel in recipient markets, the ownership structure of emerging-market banks does not by itself provide sufficient basis for identifying the degree of shock transmission from abroad.

No. 380, July 2009

Why Are Banks Holding So Many Excess Reserves?*

Todd Keister and James McAndrews

The quantity of reserves in the U.S. banking system has risen dramatically since September 2008. Some commentators have expressed concern that this pattern indicates that the Federal Reserve's liquidity facilities have been ineffective in promoting the flow of credit to firms and households. Others have argued that the high level of reserves will be inflationary. Keister and McAndrews explain, through a series of examples, why banks are currently holding so many reserves. The examples show how the quantity of bank reserves is determined by the *size* of the Federal Reserve's policy initiatives and in no way reflects the initiatives' *effects* on bank lending. They also argue that a large increase in bank reserves need not be inflationary, because the payment of interest on reserves allows the Federal Reserve to adjust short-term interest rates independently of the level of reserves.

No. 381, July 2009

The Microstructure of a U.S. Treasury ECN: The BrokerTec Platform

Michael J. Fleming and Bruce Mizrach

This paper assesses the microstructure of the U.S. Treasury securities market, using newly available tick data from the BrokerTec electronic trading platform. Examining trading activity, bid-ask spreads, and depth for on-the-run two-, three-, five-, ten-, and thirty-year Treasury securities, Fleming and Mizrach find that market liquidity is greater than that found in earlier studies that use data only from voice-assisted brokers. They find that the price effect of trades on BrokerTec is quite small and is even smaller once order-book information is considered. Moreover, order-book information itself is shown to affect prices. The authors also explore a novel feature of BrokerTec—the ability to enter hidden ("iceberg") orders—and find that, as predicted by theory, such orders are more common when price volatility is higher.

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No. 382, July 2009

The Shadow Banking System: Implications for Financial Regulation*

Tobias Adrian and Hyun Song Shin

The current financial crisis has highlighted the growing importance of the "shadow banking system," which grew out of the securitization of assets and the integration of banking with capital market developments. This trend has been most pronounced in the United States, but it has had a profound influence on the global financial system. In a market-based financial system, banking and capital market developments are inseparable: Funding conditions are closely tied to fluctuations in the leverage of market-based financial intermediaries. Growth in the balance sheets of these intermediaries provides a sense of the availability of credit, while contractions of the balance sheets have tended to precede the onset of financial crises. Securitization was intended as a way to transfer credit risk to those better able to absorb losses, but instead it increased the fragility of the entire financial system by allowing banks and other intermediaries to "leverage up" by buying one another's securities. In the new, post-crisis financial system, the role of securitization will likely be held in check by more stringent financial regulation and by the recognition that it is important to prevent excessive leverage and maturity mismatch, both of which can undermine financial stability.

No. 384, August 2009

Prestigious Stock Exchanges: A Network Analysis of International Financial Centers

Nicola Cetorelli and Stavros Peristiani

This study uses methods from social network analysis to assess the relative importance of financial centers around the world. The first phase of the analysis evaluates international stock exchanges based on their ability to attract global initial public offerings (IPOs). The second phase compares the capacity of these exchanges to provide an efficient trading platform for cross-listed companies. Cetorelli and Peristiani find that despite a diminished ability to attract cross-border IPOs, U.S. exchanges have maintained an undisputable lead in global equity activity throughout the entire sample period. They do find evidence of the rising importance of competing exchanges—in particular, the London Stock Exchange, the Deutsche Börse, and the Hong Kong Stock Exchange—and of an expanding role for a number of emerging-market stock exchanges. However, this rising pattern reflects improved competitive conditions in a growing global market rather than a sudden decline in the activity of U.S. exchanges.

No. 389, September 2009

Liquidity Risk, Credit Risk, and the Federal Reserve's Responses to the Crisis

Asani Sarkar

In responding to the severity and broad scope of the financial crisis that began in 2007, the Federal Reserve has made aggressive use of both traditional monetary policy instruments and innovative tools in an effort to provide liquidity. Sarkar examines the Fed's actions in light of the underlying financial amplification mechanisms propagating the crisis—in particular, balance sheet constraints and counterparty credit risk. The empirical evidence supports the Fed's views on the primacy of balance sheet constraints in the earlier stages of the crisis and the increased prominence of counterparty credit risk as the crisis evolved in 2008. The author concludes that an understanding of the prevailing risk environment is necessary in order to evaluate when central bank programs are likely to be effective and under what conditions the programs might cease to be necessary.

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No. 390, September 2009

Bank Capital and Value in the Cross Section

Hamid Mehran and Anjan Thakor

Mehran and Thakor address two questions: 1) Are bank capital structure and value correlated in the cross section, and if so, how? 2) If bank capital does affect bank value, how are the components of bank value affected by capital? The authors first develop a dynamic model with a dissipative cost of bank capital that is traded off against the benefits of capital: strengthened incentives for the bank to engage in value-enhancing loan monitoring and a higher probability of avoiding regulatory closure due to loan delinquencies. The model predicts that 1) the total value of the bank and its equity capital are positively correlated in the cross section, and 2) the various components of bank value are also positively cross-sectionally related to bank capital. When the authors confront the predictions with the data on bank acquisitions, they find strong support. Their results are robust to a variety of alternative explanations.

No. 391, September 2009

Price-Increasing Competition: The Curious Case of Overdraft versus Deferred Deposit Credit

Brian T. Melzer and Donald P. Morgan

The authors find that banks charge more for overdraft credit when depositors have access to a potential substitute: deferred deposit (“payday”) credit. They attribute this rise in prices partly to adverse selection created by banks’ practice of charging a flat fee regardless of the overdraft amount—pricing that favors depositors prone to large overdrafts. When deferred deposit credit priced per dollar borrowed is available, depositors prone to small overdrafts switch to that option. That selection works against banks; large overdrafts cost more to supply and, if depositors default, banks lose more, so prices rise. Consistent with this adverse-selection hypothesis, Melzer and Morgan document that the average dollar amount per returned check at banks and other depository institutions increases when depositors have access to deferred deposit credit. Beyond documenting another case of price-increasing competition, their findings bear on theories of adverse selection in credit markets and contribute to the debate over the pros and cons of payday credit.

No. 393, September 2009

Capital Constraints, Counterparty Risk, and Deviations from Covered Interest Rate Parity

Niall Coffey, Warren Hrung, and Asani Sarkar

Coffey, Hrung, and Sarkar provide robust evidence of a deviation in the covered interest rate parity (CIP) relation since the onset of the financial crisis in August 2007. The deviation exists with respect to various dollar-denominated interest rates and exchange rate pairings of the dollar vis-à-vis other currencies. The authors show that their proxies for margin conditions and for the cost of capital are significant determinants of the CIP deviations, especially during the crisis period. The supply of dollars by the Federal Reserve to foreign central banks via reciprocal currency arrangements (swap lines) reduced CIP deviations at this time. Following the bankruptcy of Lehman Brothers, uncertainty about counterparty risk became a significant determinant of CIP deviations, and the swap lines program no longer affected the deviations significantly. These results indicate a breakdown of arbitrage transactions in the international capital markets that owes partly to lack of capital and partly to heightened counterparty credit risk.

No. 395, September 2009

Are Market Makers Uninformed and Passive? Signing Trades in the Absence of Quotes

Michel van der Wel, Albert J. Menkveld, and Asani Sarkar

This study develops a new likelihood-based approach to signing trades in the absence of quotes. The approach is equally efficient as the existing Markov-chain Monte Carlo methods, but more than ten times faster. It can address the occurrence of multiple trades at the same time and allows for analysis of settings in which trade times are observed with noise. The authors apply this method to a high-frequency data set of thirty-year U.S. Treasury futures to investigate the role of the market maker. Most theory characterizes the market maker as an uninformed, passive supplier of liquidity. This study’s findings suggest, however, that some market makers actively demand liquidity for a substantial part of the day and that they are informed speculators.

No. 402, November 2009

What Fiscal Policy Is Effective at Zero Interest Rates?*

Gauti B. Eggertsson

Tax cuts can deepen a recession if the short-term nominal interest rate is zero, according to a standard New Keynesian business cycle model. An example of a contractionary tax cut is a reduction in taxes on wages. This tax cut deepens a recession because it increases deflationary pressures. Another example is a cut in capital taxes. This tax cut deepens a recession because it encourages people to save instead of spend at a time when more spending is needed. Fiscal policies aimed directly at stimulating aggregate demand work better. These policies include 1) a temporary increase in government spending and 2) tax cuts aimed directly at stimulating aggregate demand rather than aggregate supply, such as an investment tax credit or a cut in sales taxes. The results are specific to an environment in which the interest rate is close to zero, as observed in large parts of the world today.

No. 403, November 2009

A Bayesian Approach to Estimating Tax and Spending Multipliers

Matthew Denes and Gauti B. Eggertsson

This paper outlines a simple Bayesian methodology for estimating tax and spending multipliers in a dynamic stochastic general equilibrium model. After forming priors about the parameters of the model and the relevant shock, Denes and Eggertsson use the model to exactly match only one data point: the trough of the Great Depression, that is, an output collapse of 30 percent, deflation of 10 percent, and a zero short-term nominal interest rate. Because the authors form their priors as distributions, their key economic inference—the multipliers of tax and spending—is well-defined probability distributions derived from the posterior of the model. While the Bayesian methods used are standard, the application is slightly unusual. Denes and Eggertsson conjecture that this methodology can be applied in several different settings with severe data limitations and where more informal calibrations have been the norm. Applying their simple estimation method to the American Recovery and Reinvestment Act (ARRA), they find that ARRA increased output by 3.6 percent in 2009 and 2010.

No. 406, November 2009

Broker-Dealer Risk Appetite and Commodity Returns

Erkko Etula

This paper shows that the risk-bearing capacity of securities brokers and dealers is a strong determinant of risk premia and the volatility of returns in commodity markets. Etula measures risk-bearing capacity as the fraction of broker-dealer financial assets relative to the total financial assets of broker-dealers and households. This variable has particularly strong power to forecast energy returns, both in sample and out of sample: It forecasts approximately 30 percent of the variation in quarterly crude oil returns. These findings are rationalized in a simple asset-pricing model where the economic role of broker-dealers is to provide insurance against commodity price fluctuations. The author estimates cross-sectional prices of risk using an arbitrage-free asset-pricing approach and shows that broker-dealer risk-bearing capacity forecasts commodity returns because of its association with the price of risk.

No. 409, November 2009

Macroprudential Supervision of Financial Institutions: Lessons from the SCAP

Beverly Hirtle, Til Schuermann, and Kevin Stiroh

A fundamental conclusion drawn from the recent financial crisis is that the supervision and regulation of financial firms in isolation—a purely microprudential perspective—are not sufficient to maintain financial stability. Rather, a macroprudential perspective, which evaluates and responds to the financial system as a whole, seems necessary, and the ongoing discussions of regulatory reform in the United States underscore this view. The recently concluded Supervisory Capital Assessment Program (SCAP), better known as the bank "stress test," is one example of how the macro- and microprudential perspectives can be joined to create a stronger supervisory framework that addresses a wider range of supervisory objectives. This paper reviews the key features of the SCAP and discusses how they can be leveraged to improve bank supervision in the future.

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Introduction
Economic Policy Review
Current Issues
Research Update
Staff Reports
Outside Journals

No. 413, December 2009

Valuing the Treasury's Capital Assistance Program

Paul Glasserman and Zhenyu Wang

This study develops a contingent claims framework to estimate market values of the Treasury's Capital Assistance Program (CAP). The interaction between the competing options held by the buyer and issuer of these securities creates a game between them; the authors' approach captures this strategic element of the joint valuation problem and clarifies the incentives it creates. Glasserman and Wang apply their method to eighteen bank holding companies that participated in the Supervisory Capital Assessment Program (the stress test) launched with the CAP. On average, they estimate that compared with a market transaction, the CAP securities carry a net value of approximately 30 percent of the capital invested for a bank participating to the maximum extent allowed under the program's terms. Net value is also found to vary widely across banks. The results suggest that the authors' valuation aligns with shareholder perceptions of the program's value.

No. 414, December 2009

The Microstructure of the TIPS Market

Michael J. Fleming and Neel Krishnan

Fleming and Krishnan characterize the microstructure of the market for Treasury inflation-protected securities (TIPS) using novel tick data from the interdealer market. The authors find a marked difference in trading activity between on-the-run and off-the-run securities, as in the nominal Treasury securities market. They find little difference in bid-ask spreads or quoted depth between on-the-run and off-the-run securities, in contrast to the nominal market, but they do find a sharp difference in the incidence of posted quotes. Intraday activity differs strikingly from the nominal market, with activity peaking in the mid-to-late morning. Announcement effects also differ from the nominal market, with auction results and consumer price index announcements eliciting particularly sharp increases in trading activity.

No. 416, December 2009

The Mechanics of a Graceful Exit: Interest on Reserves and Segmentation in the Federal Funds Market

Morten L. Bech and Elizabeth Klee

To combat the financial crisis that intensified in fall 2008, the Federal Reserve injected a substantial amount of liquidity into the banking system. The resulting increase in reserve balances exerted downward price pressure in the federal funds market, and the effective federal funds rate began to deviate from the target rate set by the Federal Open Market Committee. In response, the Federal Reserve revised its operational framework for implementing monetary policy and began to pay interest on reserve balances in an attempt to provide a floor for the federal funds rate. Nevertheless, following the policy change, the effective federal funds rate remained below not only the target but also the rate paid on reserve balances. This study develops a model to explain this phenomenon and uses federal funds market data to evaluate it empirically. The authors show how successful the Federal Reserve may be in raising the federal funds rate even in an environment with substantial reserve balances.

Quantitative Methods

No. 363, February 2009

Model Selection Criteria for Factor-Augmented Regressions

Jan J. J. Groen and George Kapetanios

This paper develops several theoretical conditions that selection criteria must fulfill to provide a consistent estimate of the factor dimension relevant for a factor-augmented regression. The authors' framework takes into account factor estimation error and does not depend on a specific factor estimation methodology. It also provides, as a by-product, a template for developing selection criteria for regressions that include standard generated regressors. The conditions make it clear that standard model selection criteria do not provide a consistent estimate of the factor dimension in a factor-augmented regression. The authors propose alternative criteria that do fulfill their conditions. These criteria essentially modify standard information criteria so that the corresponding penalty function for dimensionality also penalizes factor estimation error. The authors show through Monte Carlo and empirical applications that these modified information criteria are useful in determining the appropriate dimensions of factor-augmented regressions.

No. 386, August 2009

Parsimonious Estimation with Many Instruments

Jan J. J. Groen and George Kapetanios

Groen and Kapetanios suggest a way to perform parsimonious instrumental variables estimation in the presence of many, and potentially weak, instruments. In contrast to standard methods, the authors' approach yields consistent estimates when the set of instrumental variables complies with a factor structure. In this sense, their method is equivalent to instrumental variables estimation that is based on principal components. However, even if the factor structure is weak or nonexistent, the authors' method, unlike the principal components approach, still yields consistent estimates. Indeed, simulations indicate that their approach always dominates standard instrumental variables estimation, regardless of whether the factor relationship underlying the set of instruments is strong, weak, or absent.

No. 388, August 2009

Real-Time Inflation Forecasting in a Changing World

Jan J. J. Groen, Richard Paap, and Francesco Ravazzolo

The authors propose a Phillips-curve–type model that results from averaging across different regression specifications selected from a set of potential predictors. In each specification, they allow for stochastic breaks in regression parameters, where the breaks are described as occasional shocks of random magnitude. As such, their framework simultaneously addresses structural change and model uncertainty that unavoidably affect Phillips-curve–based predictions. Groen, Paap, and Ravazzolo use this framework to describe personal consumption expenditure (PCE) deflator and GDP deflator inflation rates for the United States in the post–World War II period. Over the full 1960-2008 sample, the framework indicates several structural breaks across different combinations of activity measures. These breaks often coincide with policy regime changes and oil price shocks, among other important events. In contrast to many previous studies, the authors find less evidence of autonomous variance breaks and inflation gap persistence. They also show that their model specification generally provides superior one-quarter-ahead and one-year-ahead forecasts for quarterly inflation.

No. 412, December 2009

Dynamic Hierarchical Factor Models

Emanuel Moench, Serena Ng, and Simon Potter

This paper uses multi-level factor models to characterize within- and between-block variations as well as idiosyncratic noise in large dynamic panels. Block-level shocks are distinguished from genuinely common shocks, and the estimated block-level factors are easy to interpret. The framework achieves dimension reduction and yet explicitly allows for heterogeneity between blocks. The model is estimated using a Markov-chain Monte Carlo algorithm that takes into account the hierarchical structure of the factors. The authors organize a panel of 447 series into blocks according to the timing of data releases and use a four-level model to study the dynamics of real activity at both the block and aggregate levels. While the effect of the economic downturn of 2007-09 is pervasive, growth cycles are synchronized only loosely across blocks. The state of the leading and the lagging sectors, as well as that of the overall economy, is monitored in a coherent framework.

No. 415, December 2009

Measuring Consumer Uncertainty about Future Inflation

Wandi Bruine de Bruin, Charles F. Manski, Giorgio Topa, and Wilbert van der Klaauw

Current survey measures of consumer inflation expectations contain no information about an individual's uncertainty about future inflation. This information is important not only for forecasting inflation and other macroeconomic outcomes, but also for assessing a central bank's credibility and effectiveness of communication. In November 2007, the authors of this paper began administering web-based surveys to participants in RAND's American Life Panel. In addition to providing point predictions, respondents were asked to provide subjective probability distributions of future inflation outcomes. The authors find that their measures of individual forecast densities and uncertainty are internally consistent and reliable. Those who are more uncertain about year-ahead price inflation are also more uncertain about longer term price inflation and future wage changes. Participants expressing higher uncertainty in their density forecasts make larger revisions to their point forecasts over time. Finally, while the authors' measure of aggregate consumer uncertainty is correlated with the dispersion in point forecasts among individuals, the two measures are distinct concepts—both relevant to the analysis of inflation expectations.

Outside Journals

Members of the Research and Statistics Group publish in a wide range of economic and finance journals, conference volumes, and scholarly books.

Published in 2009

Macroeconomics and Growth

Marco Del Negro
"Monetary Policy Analysis with Potentially Misspecified Models," with Frank Schorfheide. *American Economic Review* 99, no. 4 (September): 1415-50.

Stefano Eusepi
"On Expectations-Driven Business Cycles in Economies with Production Externalities." *International Journal of Economic Theory* 5, no. 1 (March): 9-23.

Andrea Ferrero
"Fiscal and Monetary Rules for a Currency Union." *Journal of International Economics* 77, no. 1 (February): 1-10.

Sagiri Kitao
"Labor Supply Elasticity and Social Security Reform," with Selahattin İmrohoroğlu. *Journal of Public Economics* 93, no. 7-8 (August): 867-78.

"Taxing Capital? Not a Bad Idea After All!" with Juan Carlos Conesa and Dirk Krueger. *American Economic Review* 99, no. 1 (March): 25-8.

"U.S. Tax Policy and Health Insurance Demand: Can a Regressive Policy Improve Welfare?" with Karsten Jeske. *Journal of Monetary Economics* 56, no. 2 (March): 210-21.

Emanuel Moench
"Sectoral Price Data and Models of Price Setting," with Bartosz Maćkowiak and Mirko Wiederholt. *Journal of Monetary Economics* 56, October. Suppl. no. 1: S78-S99.

Ayşegül Şahin
"Job-Finding and Separation Rates in the OECD," with Bart Hobijn. *Economics Letters* 104, no. 3 (September): 107-58.

"Revisiting the Welfare Effects of Eliminating Business Cycles," with Per Krusell, Toshihiko Mukoyama, and Anthony A. Smith, Jr. *Review of Economic Dynamics* 12, no. 3 (July): 393-404.

"Specialization and Efficiency with Labor Market Matching," with Toshihiko Mukoyama. *Journal of Economic Dynamics and Control* 33, no. 1 (January): 221-36.

"Why Did the Average Duration of Unemployment Become So Much Longer?" with Toshihiko Mukoyama. *Journal of Monetary Economics* 56, no. 2 (March): 200-9.

International

Mary Amiti
"Service Offshoring and Productivity: Evidence from the U.S.," with Shang-Jin Wei. *World Economy* 32, no. 2 (February): 203-20.

Erkko Etula
"International Factor Price Equalization in a Limited-Substitutability Technology Framework." *International Review of Economics and Finance* 18, no. 2 (March): 282-9.

Linda Goldberg
"Currency Invoicing of International Trade." In Adam S. Posen, ed., *The Euro at Ten*, 61-102. Washington, D.C.: Peterson Institute for International Economics.

"Macroeconomic Interdependence and the International Role of the Dollar," with Cédric Tille. *Journal of Monetary Economics* 56, no. 7 (October): 990-1003.

"Understanding Banking Sector Globalization." *IMF Staff Papers* 56, no. 1 (April): 171-97.

Jan Groen
"A Real-Time Evaluation of Bank of England Forecasts of Inflation and Growth." *International Journal of Forecasting* 25, no. 1 (January-March): 74-80.

Todd Keister
"Expectations and Contagion in Self-Fulfilling Currency Attacks." *International Economic Review* 50, no. 3 (August): 991-1012.

Thomas Klitgaard
"The Rise and Fall of Sovereign Wealth Accumulation: Causes and Consequences," with Matthew Higgins. In *Les Fonds Souverains* [Sovereign Wealth Funds], special issue, *Revue d'Economie Financière*, 179-93.

Paolo Pesenti
Comment on "Reflections on Monetary Policy in the Open Economy," by Richard H. Clarida. In Jeffrey Frankel and Christopher Pissarides, eds., *NBER International Seminar on Macroeconomics 2008*. Chicago: University of Chicago Press.

Microeconomics

Adam Copeland
"The Welfare Effects of Incentive Schemes," with Cyril Monnet. *Review of Economic Studies* 76, no. 1 (January): 93-113.

Richard Crump
"Dealing with Limited Overlap in Estimation of Average Treatment Effects," with V. Joseph Hotz, Guido W. Imbens, and Oscar A. Mitnik. *Biometrika* 96, no. 1 (March): 187-99.

Wilbert van der Klaauw
"The Effects of In-Work Benefit Reform in Britain on Couples: Theory and Evidence," with Marco Francesconi and Helmut Rainer. *Economic Journal* 119, no. 535 (February): 66-100.

Banking and Finance

Tobias Adrian
"Inference, Arbitrage, and Asset Price Volatility." *Journal of Financial Intermediation* 18, no. 1 (January): 49-64.

"Learning about Beta: Time-Varying Factor Loadings, Expected Returns, and the Conditional CAPM," with Francesco Franzoni. *Journal of Empirical Finance* 16, no. 4 (September): 537-56.

"Money, Liquidity, and Monetary Policy," with Hyun Song Shin. *American Economic Review* 99, no. 2 (May): 600-5. Papers and Proceedings of the 121st Annual Meeting of the American Economic Association.

"The Shadow Banking System: Implications for Financial Regulation," with Hyun Song Shin. In *The Future of Financial Regulation*, Bank of France *Financial Stability Review*, no. 13 (September): 1-10.

Adam Ashcraft and João Santos
"Has the CDS Market Lowered the Cost of Corporate Debt?" *Journal of Monetary Economics* 56, no. 4 (May): 514-23.

Nicola Cetorelli
"Banking and Real Economic Activity." In Allen Berger, Phillip Molineaux, and John Wilson, eds., *Oxford Handbook of Banking*. Oxford University Press.

Andrew Haughwout and Joseph Tracy
"Subprime Mortgage Pricing: The Impact of Race, Ethnicity, and Gender on the Cost of Borrowing," with Christopher Mayer. *Brookings-Wharton Papers on Urban Affairs*: 33-56.

Beverly Hirtle
"Credit Derivatives and Bank Credit Supply." *Journal of Financial Intermediation* 18, no. 2 (April): 125-50.

Todd Keister
"Bank Runs and Institutions: The Perils of Intervention," with Huberto M. Ennis. *American Economic Review* 99, no. 4 (September): 1588-1607.

"Bank Runs as Coordination Failures: An Experimental Study," with Rod Garratt. *Journal of Economic Behavior and Organization* 71, no. 2 (August): 300-17.

"Run Equilibria in the Green-Lin Model of Financial Intermediation," with Huberto M. Ennis. *Journal of Economic Theory* 144, no. 5 (September): 1996-2020.

Anna Kovner
"Specialization and Success: Evidence from Venture Capital," with Paul Gompers and Josh Lerner. *Journal of Economics and Management Strategy* 18, no. 3 (fall): 817-44.

Antoine Martin
"Banks, Markets, and Efficiency," with Falko Fecht. *Annals of Finance* 5, no. 2 (March): 131-60.

"Optimal Monetary Policy in Economic Growth," with Joydeep Bhattacharya and Joseph H. Haslag. *European Economic Review* 53, no. 2 (February): 210-21.

"Reconciling Bagehot with the Fed's Response to September 11." *Journal of Money, Credit, and Banking* 41, no. 2-3 (March-April): 397-415.

"Why Does Overnight Liquidity Cost More than Intraday Liquidity?" with Joydeep Bhattacharya and Joseph H. Haslag. *Journal of Economic Dynamics and Control* 33, no. 6 (June): 1236-46.

James McAndrews
"Rating the Raters: Are Reputation Concerns Powerful Enough to Discipline Rating Agencies?" with Jérôme Mathis and Jean-Charles Rochet. *Journal of Monetary Economics* 56, no. 5 (July): 657-74.

João Santos
"Do Banks Price Their Informational Monopoly?" with Galina Hale. *Journal of Financial Economics* 93, no. 2 (August): 185-206.

"Do Markets 'Discipline' All Banks Equally?" *Journal of Financial Economic Policy* 1, no. 1: 107-23.

"Is the Secondary Market for Loans Beneficial to Firms?" with Peter Nigro. *Quarterly Review of Economics and Finance* 49, no. 4 (November): 1410-28.

Asani Sarkar
"Liquidity Begets Liquidity: Implications for a Dark Pool Environment," with Nicholas Klagge and Robert A. Schwartz. *Institutional Investor Journals, A Guide to Global Liquidity 2009* 1, winter: 15-20.

"Liquidity Risk, Credit Risk, and the Federal Reserve's Responses to the Crisis." *Financial Markets and Portfolio Management* 23, no. 4: 335-48.

"Market Sidedness: Insights into Motives for Trade Initiation," with Robert A. Schwartz. *Journal of Finance* 64, no. 1 (February): 375-423.

"Time-Varying Consumption Covariance and Dynamics of the Equity Premium: Evidence from the G-7 Countries," with Lingjia Zhang. *Journal of Empirical Finance* 16, no. 4 (September): 613-31.

Til Schuermann
"Forecasting Economic and Financial Variables with Global VARs," with M. Hashem Pesaran and L. Vanessa Smith. *International Journal of Forecasting* 25, no. 4 (October-December): 642-75.

"Managing Bank Liquidity Risk: How Deposit-Loan Synergies Vary with Market Conditions," with Evan Gatev and Philip E. Strahan. *Review of Financial Studies* 22, no. 3 (March): 995-1020.

Zhenyu Wang
"The Analysis of the Cross Section of Security Returns," with Ravi Jagannathan and Giorgios Skoulakis. In Yacine Ait-Sahalia and Lars Hansen, eds., *Handbook of Financial Econometrics*, vol. 1. Amsterdam: North-Holland.

"Y2K Options and the Liquidity Premium in Treasury Markets," with Suresh Sundaresan. *Review of Financial Studies* 22, no. 3 (March): 1021-56.

Tanju Yorulmazer
"On the Dynamics and Severity of Bank Runs: An Experimental Study," with Andrew Schotter. *Journal of Financial Intermediation* 18, no. 2 (April): 217-41.

Quantitative Methods

Simon Potter
"Prior Elicitation in Multiple-Change-Point Models," with Gary Koop. *International Economic Review* 50, no. 3 (August): 751-72.

Forthcoming

Macroeconomics and Growth

Tobias Adrian
"Prices and Quantities in the Monetary Policy Transmission Mechanism," with Hyun Song Shin. *International Journal of Central Banking*.

Olivier Armantier, Giorgio Topa, and Wilbert van der Klaauw
"Expectations of Inflation: The Role of Financial Literacy and Demographic Variables," with Wandi Bruine de Bruin, Julie S. Downs, and Baruch Fischhoff. *Journal of Consumer Affairs*.

Stefano Eusepi
"Central Bank Communication and Expectations Stabilization," with Bruce Preston. *American Economic Journal: Macroeconomics*.

"Central Bank Transparency and Nonlinear Learning Dynamics." *Journal of Money, Credit, and Banking*.

Sagiri Kitao
"Financing Medicare: A General Equilibrium Analysis," with Orazio Attanasio and Gianluca Violante. In John Shoven, ed., *Demography and the Economy*. Chicago: University of Chicago Press.

Jonathan McCarthy
"Has the Response of Investment to Financial Market Signals Changed?" In Per Gunnar Berglund and Leanne J. Ussher, eds., *Recent Developments in Macroeconomics*. Eastern Economic Association conference volume. Routledge.

Simon Potter
"Business Cycle Monitoring with Structural Change," with Marcelle Chauvet. *International Journal of Forecasting*.

Robert Rich and Joseph Tracy
"The Relationship between Expected Inflation, Disagreement, and Uncertainty: Evidence from Matched Point and Density Forecasts." *Review of Economics and Statistics*.

Argia Sbordone
"Globalization and Inflation Dynamics: The Impact of Increased Competition." In Jordi Galí and Mark Gertler, eds., *International Dimensions of Monetary Policy*. NBER conference volume. Chicago: University of Chicago Press.

Andrea Tambalotti
"Investment Shocks and Business Cycles," with Alejandro Justiniano and Giorgio Primiceri. *Journal of Monetary Economics*.

International

Andrea Ferrero
"Current Account Dynamics and Monetary Policy," with Mark Gertler and Lars Svensson. In Jordi Galí and Mark Gertler, eds., *International Dimensions of Monetary Policy*. NBER conference volume. Chicago: University of Chicago Press.

Linda Goldberg
"Distribution Margins, Imported Inputs, and the Sensitivity of the CPI to Exchange Rates," with José Manuel Campa. *Review of Economics and Statistics*.

Jan Groen and Paolo Pesenti
"Commodity Prices, Commodity Currencies, and Global Economic Developments." In Andrew Rose and Takatoshi Ito, eds., *Commodity Prices and Markets*. East Asia Seminar on Economics 20. NBER conference volume. Chicago: University of Chicago Press.

Rebecca Hellerstein
"Outsourcing and Pass-Through," with Sofia Berto Villas-Boas. *Journal of International Economics*.

Paolo Pesenti
Comment on "Current Account Dynamics and Monetary Policy," by Andrea Ferrero, Mark Gertler, and Lars Svensson. In Jordi Galí and Mark Gertler, eds., *International Dimensions of Monetary Policy*. NBER conference volume. Chicago: University of Chicago Press.

Microeconomics

Jaison Abel
"Hedonic Price Indexes for Personal Computer Operating Systems and Productivity Suites," with Ernst R. Berndt, Cory W. Monroe, and Alan G. White. *Annals of Economics and Statistics*.

Olivier Armantier
"Alternative Pricing Rules for Treasury Auctions," with Erwann Sbai. *Annals of Economics and Statistics*.

"Overbidding in First Price Auction: Risk Aversion versus Probability Weighting Function." *Economics Letters*.

"Subjective Probabilities in Games: An Application to the Overbidding Puzzle," with Nicholas Treich. *International Economic Review*.

Meta Brown
"Real-Time Search in the Laboratory and the Market," with Christopher Flinn and Andrew Schotter. *American Economic Review*.

Rajashri Chakrabarti
"The Economics of Parental Choice," with Joydeep Roy. In Dominic Brewer and Patrick McEwan, eds., *International Encyclopedia of Education*. Elsevier.

Adam Copeland
"The Response of Prices, Sales, and Output to Temporary Changes in Demand," with George Hall. *Journal of Applied Econometrics*.

Andrew Haughwout
"How Should the Suburbs Help Their Central City?" with Robert Inman. *Annals of the American Academy of Political and Social Science*.

"Trade and Tax Policy: Lessons from American Regions." In *Tax Policy.* Proceedings of a Bank of Italy Public Finance Workshop.

Donghoon Lee
"Accounting for Wage and Employment Changes in the U.S. from 1968 to 2000: A Dynamic Model of Labor Market Equilibrium," with Kenneth I. Wolpin. *Journal of Econometrics*.

Giorgio Topa
"Neighborhood Effects: Accomplishments and Looking beyond Them," with Yannis Ioannides. *Journal of Regional Science*.

Joseph Tracy
"Housing Busts and Household Mobility," with Fernando Ferreira and Joseph Gyourko. *Journal of Urban Economics*.

Wilbert van der Klaauw
"Economics Coursework and Long-Term Behavior and Experiences of College Graduates in Labor Markets and Personal Finance," with Sam Allgood, William Bosshardt, and Michael Watts. *Economic Inquiry*.

"Maternal Employment, Migration, and Child Development," with Thomas Mroz and Haiyong Liu. *Journal of Econometrics*.

James Vickery
"Rainfall Insurance in Semi-Arid India: Contract Design, Household Participation, and Future Prospects," with Robert Townsend and Xavier Giné. In Kenneth Tang, ed., *Weather Risk Management*. London: RiskBooks.

Banking and Finance

Tobias Adrian
"The Changing Nature of Financial Intermediation and the Financial Crisis of 2007-2009," with Hyun Song Shin. *Annual Review of Economics*.

"Disagreement and Learning in a Dynamic Contracting Model," with Mark Westerfield. *Review of Financial Studies*.

"Liquidity and Leverage," with Hyun Song Shin. *Journal of Financial Intermediation*.

Adam Ashcraft
"Are Bank Holding Companies a Source of Strength to their Subsidiaries? New Evidence on the Operation of Internal Capital Markets." *Journal of Money, Credit, and Banking*.

"Borrowers' Financial Constraints and the Transmission of Monetary Policy: Evidence from Financial Conglomerates," with Murillo Campello. *Journal of Monetary Economics*.

Adam Ashcraft *(continued)*
"Systemic Illiquidity in the Federal Funds Market," with Darrell Duffie. *American Economic Review*. Papers and Proceedings of the 119th Annual Meeting of the American Economic Association.

Adam Ashcraft and Morten Bech
"The Federal Home Loan Bank System: The Lender of Next-to-Last Resort?" with W. Scott Frame. *Journal of Money, Credit, and Banking*.

Nicola Cetorelli
Comment on "Inflation and Financial Market Performance: What Have We Learned in the Last Ten Years?" by John Boyd and Bruce Champ. *Journal of Money, Credit, and Banking*.

Gauti Eggertsson
"Dynamic Incentives and Optimal Delegation of Political Power," with Eric Le Borgne. *Journal of Money, Credit, and Banking*.

Stefano Eusepi
"Central Bank Communication and the Liquidity Trap." *Journal of Money, Credit, and Banking*.

Anna Kovner
"Buy Local? The Geography of Venture Capital," with Paul Gompers and Josh Lerner. *Journal of Urban Economics*.

"Performance Persistence in Entrepreneurship," with Paul Gompers, Josh Lerner, and David Scharfstein. *Journal of Financial Economics*.

Antoine Martin and James McAndrews
"Should There Be Intraday Money Markets?" *Contemporary Economic Policy.*

"A Study of Competing Designs for a Liquidity-Saving Mechanism." *Journal of Banking and Finance*.

Hamid Mehran
"Bank Capital and Value in the Cross Section," with Anjan Thakor. *Review of Financial Studies*.

Hamid Mehran and Stavros Peristiani
"Financial Visibility and the Decision to Go Private." *Review of Financial Studies*.

Asani Sarkar
"Credit Default Swap Auctions," with Jean Helwege, Samuel Maurer, and Yuan Wang. *Journal of Fixed Income*.

"The Microstructure of Cross-Autocorrelations," with Avanidhar Subrahmanyam and Tarun Chordia. *Journal of Financial and Quantitative Analysis*.

Tanju Yorulmazer
"Liquidity, Bank Runs, and Bailouts: Spillover Effects during the Northern Rock Episode." *Journal of Financial Services Research*.

Quantitative Methods

Simon Potter
"Modeling the Dynamics of Inflation Compensation," with Markus Jochmann and Gary Koop. *Journal of Empirical Finance*.

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